## AMENDMENT

Please amend the application without prejudice, without admission, without surrender of subject matter and without intention of creating any estoppel as to equivalents, as follows.

**In the Claims**

1-15. (Cancelled)

16. (Currently amended) A method for inducing an immunological response in a bovine against a bovine pathogen, comprising administering into the epidermis, dermis and/or hypodermis of the bovine an immunogenic composition that comprises a plasmid that contains and expresses, *in vivo*, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, by a liquid jet intradermal administration apparatus that administers the composition [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle,~~; and into the epidermis, dermis and/or hypodermis;~~ wherein the administration of said composition results in the generation of the immunological response in said bovine.

17. (Currently amended) An immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the immunogenic composition is in a liquid jet intradermal administration apparatus that administers the immunogenic composition [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle~~; and into the epidermis, dermis and/or hypodermis~~.

18. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 1-10 points on the bovine.

19. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 4-6 points on the bovine.

20. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

21. (Currently amended) The method of claim 16, wherein the ~~apparatus administers the composition at 5 points on the bovine~~ sequence is operably linked to a eukaryotic promoter.

22. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 1-10 points on the bovine.

23. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 4-6 points on the bovine.

24. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

25. (Previously added) The immunogenic composition of claim 17, wherein the ~~apparatus administers the composition at 5 points on the bovine~~ sequence is operably linked to a eukaryotic promoter.

26. (Previously added) The method of claim 16, wherein the bovine pathogen is BRSV.

27. (Previously added) The method of claim 16, wherein the bovine pathogen is IBR.

28. (Previously added) The immunogenic composition of claim 17, wherein the bovine pathogen is BRSV.

29. (Previously added) The immunogenic composition of claim 17, wherein the bovine pathogen is IBR.

30. (Previously added) The method of claim 26, wherein the nucleic acid molecule encodes BRSV G.

31. (Previously added) The method of claim 26, wherein the nucleic acid molecule encodes BRSV F.

32. (Previously added) The method of claim 27, wherein the nucleic acid molecule encodes IBR gB.

33. (Previously added) The immunogenic composition of claim 28, wherein the nucleic acid molecule encodes BRSV G.

34. (Previously added) The immunogenic composition of claim 28, wherein the nucleic acid molecule encodes BRSV F.

35. (Previously added) The immunogenic composition of claim 29, wherein the nucleic acid molecule encodes IBR gB.

36. (Currently amended) A method for vaccinating a bovine against a bovine pathogen comprising administering into the epidermis, dermis and/or hypodermis of the bovine a vaccine that comprises a plasmid that contains and expresses, *in vivo*, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, by a

liquid jet intradermal administration apparatus that administers the vaccine [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle,~~; and into the epidermis, dermis and/or hypodermis;~~ wherein the administration of said vaccine results in the generation of an immunological response in said bovine.

37. (Currently amended) A vaccine against a bovine pathogen comprising a plasmid that contains and expresses, *in vivo*, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the vaccine is in a liquid jet intradermal administration apparatus that adminsters the vaccine [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle~~; and into the epidermis, dermis and/or hypodermis~~.

38. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 1-10 points on the bovine.

39. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 4-6 points on the bovine.

40. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

41. (Currently amended) The method of claim 36, wherein the ~~apparatus administers the composition at 5 points on the bovine~~ sequence is operably linked to a eukaryotic promoter.

42. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 1-10 points on the bovine.

43. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 4-6 points on the bovine.

44. (Previously added) The vaccine of claim 37, wherein the ~~apparatus administers the composition at 5 or 6 points on the bovine~~ sequence is operably linked to a eukaryotic promoter.

45. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

46. (Previously added) The method of claim 36, wherein the bovine pathogen is BRSV.

47. (Previously added) The method of claim 36, wherein the bovine pathogen is IBR.

48. (Previously added) The vaccine of claim 37, wherein the bovine pathogen is BRSV.

49. (Previously added) The vaccine of claim 37, wherein the bovine pathogen is IBR.

50. (Previously added) The method of claim 46, wherein the nucleic acid molecule encodes BRSV G.

51. (Previously added) The method of claim 46, wherein the nucleic acid molecule encodes BRSV F.

52. (Previously added) The method of claim 47, wherein the nucleic acid molecule encodes IBR gB.

53. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecule encodes BRSV G.

54. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecule encodes BRSV F.

55. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecules encodes IBR gB.

56. (Currently amended) A liquid jet intradermal administration apparatus that administers a composition [[to]]into the epidermis, dermis and/or hypodermis of an animal,[[:]] without a needle, ~~and into the epidermis, dermis and/or hypodermis;~~ wherein the apparatus includes an immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses, *in vivo*, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen.

57. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 1-10 points on the animal.

58. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 4-6 points on the animal.

59. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 5 or 6 points on the animal.

60. (Previously added) The apparatus of claim 56, wherein the ~~apparatus administers the composition at 5 points on the bovine~~ sequence is operably linked to a eukaryotic promoter.

61. (Previously added) The apparatus of claim 56, wherein the bovine pathogen is BRSV.

62. (Previously added) The apparatus of claim 56, wherein the bovine pathogen is IBR.

63. (Cancelled)

64. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes BRSV G.

65. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes BRSV F.

66. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes IBR gB.

67. (Cancelled)

68. (Currently amended) A method for inducing an immunological response in a bovine against a bovine pathogen, comprising administering into the epidermis, dermis and/or hypodermis of the bovine an immunogenic composition that comprises a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the sequence encoding the immunogen is operably linked to a cytomegalovirus (CMV) promoter and is selected from the group consisting of bovine respiratory syncytial virus (BRSV) F protein, BRSV G protein and infectious bovine rhinotracheitis virus (IBR virus) gB protein, by a liquid jet intradermal administration apparatus that administers the composition to the bovine: without a needle; and into the epidermis, dermis and/or hypodermis; wherein the administration of said composition results in the generation of the immunological response in said bovine.

69. (Allowed) The method of claim 68, wherein the apparatus administers the composition at 1-10 points on the bovine.

70. (Allowed) The method of claim 68, wherein the apparatus administers the composition at 4-6 points on the bovine.

71. (Allowed) The method of claim 68, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

72. (Allowed) The method of claim 68, wherein the apparatus administers the composition at 5 points on the bovine.

73. (Allowed) The method of claim 68, wherein the nucleic acid molecule encodes BRSV G.

74. (Allowed) The method of claim 68, wherein the nucleic acid molecule encodes BRSV F.

75. (Allowed) The method of claim 68, wherein the nucleic acid molecule encodes IBR gB.

76. (Currently amended) An immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the sequence encoding the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein, and wherein the immunogenic composition is in a liquid jet intradermal administration apparatus that administers the immunogenic composition to the bovine: without a needle, and into the epidermis, dermis and/or hypodermis.

77. (Allowed) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 1-10 points on the bovine.

78. (Allowed) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 4-6 points on the bovine.

79. (Allowed) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

80. (Allowed) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 5 points on the bovine.

81. (Allowed) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes BRSV G.

82. (Allowed) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes BRSV F.

83. (Allowed) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes IBR gB.

84. (Currently amended) A method for vaccinating a bovine against a bovine pathogen comprising administering into the epidermis, dermis and/or hypodermis of the bovine a vaccine that comprises a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the sequence encoding the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein, by a liquid jet intradermal administration apparatus that administers the vaccine to the

bovine: without a needle; and into the epidermis, dermis and/or hypodermis, wherein the administration of said vaccine results in the generation of an immunological response in said bovine.

85. (Allowed) The method of claim 84, wherein the apparatus administers the composition at 1-10 points on the bovine.

86. (Allowed) The method of claim 84, wherein the apparatus administers the composition at 4-6 points on the bovine.

87. (Allowed) The method of claim 84, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

88. (Allowed) The method of claim 84, wherein the apparatus administers the composition at 5 points on the bovine.

89. (Allowed) The method of claim 84, wherein the nucleic acid molecule encodes BRSV G.

90. (Allowed) The method of claim 84, wherein the nucleic acid molecule encodes BRSV F.

91. (Allowed) The method of claim 84, wherein the nucleic acid molecule encodes IBR gB.

92. (Currently amended) A vaccine against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the sequence encoding the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein, and wherein the vaccine is in a liquid jet intradermal administration apparatus that adminsters the vaccine to the bovine: without a needle; and into the epidermis, dermis and/or hypodermis.

93. (Allowed) The vaccine of claim 92, wherein the apparatus administers the composition at 1-10 points on the bovine.

94. (Allowed) The vaccine of claim 92, wherein the apparatus administers the composition at 4-6 points on the bovine.

95. (Allowed) The vaccine of claim 92, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

96. (Currently amended) The vaccine of claim 92, wherein the apparatus administers the composition at 5 ~~or 6~~ points on the bovine.

97. (Allowed) The vaccine of claim 92, wherein the nucleic acid molecule encodes BRSV G.

98. (Allowed) The vaccine of claim 92, wherein the nucleic acid molecule encodes BRSV F.

99. (Allowed) The vaccine of claim 92, wherein the nucleic acid molecules encodes IBR gB.

100. (Currently amended) A liquid jet intradermal administration apparatus that administers a composition to an animal: without a needle, and into the epidermis, dermis and/or hypodermis; wherein the apparatus includes an immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen wherein the sequence encoding the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein.

101. (Allowed) The apparatus of claim 100, wherein the apparatus administers the composition at 1-10 points on the animal.

102. (Allowed) The apparatus of claim 100, wherein the apparatus administers the composition at 4-6 points on the animal.

103. (Allowed) The apparatus of claim 100, wherein the apparatus administers the composition at 5 or 6 points on the animal.

104. (Allowed) The apparatus of claim 100, wherein the apparatus administers the composition at 5 points on the animal.

105. (Allowed) The apparatus of claim 100, wherein the nucleic acid molecule encodes BRSV G.

106. (Allowed) The apparatus of claim 100, wherein the nucleic acid molecule encodes BRSV F.

107. (Allowed) The apparatus of claim 100, wherein the nucleic acid molecule encodes IBR gB.